

1 **WHAT IS CLAIMED IS:**

2 1. A nozzle for a blow molding machine that uses an external
3 compressed air source comprising:

4 a base connected to a compressed air source and having a top, a bottom,
5 an inlet defined in the bottom and a mouth defined in the top, communicating
6 with the inlet and having a first diameter at the top of the base;

7 an attachment collar attached securely to the top of the base and having a
8 top, a bottom, a central hole defined coaxially through the attachment collar and
9 a top flange formed in and extending into the central hole at the top of the
10 attachment collar; and

11 a head mounted moveably in the central hole in the attachment collar
12 and having a bottom, a top extending out from the top of the attachment collar, a
13 central passage defined longitudinally through the head, communicating with the
14 mouth in the base and having a second diameter at the bottom of the head and a
15 bottom protrusion protruding radially out from the bottom of the head,

16 wherein the first diameter of the mouth at the top of the base is larger
17 than the second diameter of the central passage at the bottom of the head to make
18 part of the bottom of the head correspond to the mouth.

19 2. The nozzle as claimed in claim 1, wherein

20 a gap is defined between the top flange on the attachment collar and the
21 bottom protrusion on the head to make the head moveable relative to the
22 attachment collar.

23 3. The nozzle as claimed in claim 2 further comprising an O-ring
24 mounted around the protrusion on the head.

1 4. The nozzle as claimed in claim 2, wherein the head has a chamfer
2 defined around the top of the head.

3 5. The nozzle as claimed in claim 4 further comprising an O-ring
4 mounted around the head near the top of the head.

5 6. The nozzle as claimed in claim 5, wherein the base has multiple
6 threaded holes defined in the top of the base;
7 the attachment collar has multiple through holes defined through the
8 attachment collar and aligning respectively with the threaded holes in the base;
9 and
10 multiple bolts penetrating respectively through the through holes in the
11 attachment collar and screwed respectively into the threaded holes in the base to
12 securely attach the attachment collar onto the base.

13 7. The nozzle as claimed in claim 1, wherein the base has multiple
14 threaded holes defined in the top of the base;
15 the attachment collar has multiple through holes defined through the
16 attachment collar and aligning respectively with the threaded holes in the base;
17 and
18 multiple bolts penetrating respectively through the through holes in the
19 attachment collar and screwed respectively into the threaded holes in the base to
20 securely attach the attachment collar onto the base.